

Notice of Allowability

Application No.

09/725,674

Examiner

Minh Dieu Nguyen

Applicant(s)

HIRANO ET AL.

Art Unit

2137

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to RCE dated May 31, 2005.
2. ☒ The allowed claim(s) is/are 1-14 and 16.
3. ☒ The drawings filed on 30 November 2000 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 5/31/2005
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.



**ANDREW CALDWELL
SUPERVISORY PATENT EXAMINER**

PD

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Allison Olenginski on 6/9/2005.

2. The application has been amended as follows:

Please amend the claims as specified on page 3.

1. (Original) A data management method for distributing digital content in which annex information is visibly arranged, the data management method comprising:

a step of duplicating as a discrete data unit a part of said digital content including a position where said annex information is visibly arranged, and encrypting the discrete data unit to create an encrypted discrete data unit;

a step of embedding within said digital content as invisible information image-compositing information, relating to position and size for arranging said annex information in said digital content, and authorization information, including encryption key information by which said discrete data unit is encrypted, to create an authorization information-added data unit;

a step of visibly arranging said annex information in a position corresponding to the discrete data unit for said authorization information-added data unit, to create an annex information-added data unit; and

a step of creating and distributing composite data composited from said encrypted discrete data unit and said annex information-added data unit.

2. (Original) The data management method set forth in claim 1, wherein said annex information is embedded in said digital content as a visible digital watermark.

3. (Original) The data management method set forth in claim 2, wherein annex information equivalent to annex information embedded in said digital content as a visible digital watermark is embedded in said discrete data unit as an invisible digital watermark and is encrypted to create an encrypted discrete data unit.

4. (Original) The data management method set forth in claim 1, wherein said image-compositing information and authorization information are encrypted with a secret key and embedded in said digital content as invisible information.

5. (Original) The data management method set forth in claim 4, wherein said image-compositing information and authorization information are encrypted with a secret key, and embedded as an invisible digital watermark in a portion of said digital content including the position where said annex information in said digital content is visibly arranged.

6. (Previously Presented) The data management method set forth in claim 4, wherein said secret key is at least one selected from among: user identification information, identification information for on-board devices in users' in-use computers, identification information for on-board CPUs in users' in-use computers, identification information specific to recording media storing said digital content, and user login information registered in users' in-use computers.

7. (Previously Presented) The data management method set forth in claim 4, wherein said secret key is identification information common to a plurality of users.

8. (Previously Presented) The data management method set forth in claim 4, wherein said secret key is at least one selected from among identification information specific to distributors of said digital content, and identification information specific to copyright holders of said digital content.

9. (Original) The data management method set forth in claim 1, further comprising:
a step of separating the authorization information-added data unit and the encrypted discrete data unit from the distributed composite data;
a step of extracting the image-compositing information and the authorization information from the separated authorization information-added data unit;
a step of using the extracted authorization information to restore the encryption key by which said encrypted discrete data unit is encrypted;
a step of using the restored encryption key to restore said encrypted discrete data unit into the discrete data unit; and
a step of compositing, based on said image-compositing information, the restored discrete data unit into image data for said authorization information-added data unit.

10. (Original) The data management method set forth in claim 9, wherein invisible information embedded in said authorization information-added data unit includes use count information on times users use said digital content, and said invisible information is overwritten every time a user uses said digital content.

11. (Original) The data management method set forth in claim 10, wherein if the use count information included in said invisible information exceeds a predetermined value, users' use is restricted.

12. (Previously Presented) The data management method set forth in claim 9, configured to restrict saving of the image-compositing information and authorization information extracted from said authorization information-added data unit.

13. (Previously Presented) The data management method set forth in claim 9, configured to restrict saving of the image data in which the restored discrete data unit is composited into the image data for said authorization information-added data unit.

14. (Original) A recording medium on which is recorded a program for an image-generating method comprising:

- a step of duplicating as a discrete data unit a part of digital content including a position where annex information is visibly arranged, and encrypting the discrete data unit to create an encrypted discrete data unit;

- a step of embedding within said digital content as invisible information image-compositing information, relating to position and size for arranging said annex information in said digital content, and authorization information, including encryption key information by which said discrete data unit is encrypted, to create an authorization information-added data unit;

- a step of visibly arranging said annex information in a position corresponding to the discrete data unit for said authorization information-added data unit, to create an annex information-added data unit; and

- a step of creating composite data composited from said encrypted discrete data unit and said annex information-added data unit.

15. (Cancelled)

16. (Original) A recording medium on which is recorded a program for an image-restoration method comprising:

- a step of separating an authorization information-added data unit and an encrypted discrete data unit from distributed composite data;

a step of extracting image-compositing information and authorization information from the separated authorization information-added data unit;

a step of using the extracted authorization information to restore the encryption key by which said encrypted discrete data unit is encrypted;

a step of using the restored encryption key to restore said encrypted discrete data unit into the discrete data unit; and

a step of compositing, based on said image-compositing information, the restored discrete data unit into image data for said authorization information-added data unit.

17. (Cancelled)

Allowable Subject Matter

3. Claims 1-14 and 16 are allowed.
4. The following is an examiner's statement of reasons for allowance:

As recited in claims 1 and 14, a data management method for distributing digital content in which annex information is visibly arranged, the data management method comprising:

- i) a step of duplicating as a discrete data unit a part of said digital content including a position where said annex information is visibly arranged, and encrypting the discrete data unit to create an encrypted discrete data unit;
- ii) a step of embedding within said digital content as invisible information image-compositing information, relating to position and size for arranging said annex information in said digital content, and authorization information, including encryption key information by which said discrete data unit is encrypted, to create an authorization information-added data unit;
- iii) a step of visibly arranging said annex information in a position corresponding to the discrete data unit for said authorization information-added data unit, to create an annex information-added data unit; and
- iv) a step of creating and distributing composite data composited from said encrypted discrete data unit and said annex information-added data unit.

The prior art, Kambayashi et al. (2002/0002466) discloses an information recording/reproducing apparatus and an information distribution system for distributing digital contents with copyright protection, its system with three different arrangements

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(Figs 1, 3 and 7) of the first embodiment do not anticipate the above limitations, especially steps i) and ii).

As recited in claim 16, a recording medium on which is recorded a program for an image-restoration method comprising:

- i) a step of separating an authorization information added data unit and an encrypted discrete data unit from distributed composite data;
- ii) a step of extracting image-compositing information and authorization information from the separated authorization information-added data unit;
- iii) a step of using the extracted authorization information to restore the encryption key by which said encrypted discrete data unit is encrypted;
- iv) a step of using the restored encryption key to restore said encrypted discrete data unit into the discrete data unit; and
- v) a step of compositing, based on said image compositing information, the restored discrete data unit into image data for said authorization information-added data unit.

The prior art, Kambayashi et al. (2002/0002466) discloses an information recording/reproducing apparatus and an information distribution system for distributing digital contents with copyright protection, its system with second embodiment (Fig. 54), third embodiment (Figs. 75-76), fourth embodiment (Figs 107, 114, 118) and fifth embodiment (Fig. 122) do not anticipate the above limitations, especially steps i), ii) and v).

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh Dieu Nguyen whose telephone number is 571-272-3873. The examiner can normally be reached on M-F 6:00-2:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on 571-272-3868. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2100.

Minh Dieu Nguyen
Examiner
Art Unit 2137

mdn
6/10/05



ANDREW CALDWELL
SUPERVISORY PATENT EXAMINER